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**2N2573 thru 2N2579 (SILICON)**

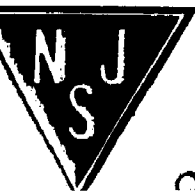


TO-3

For units with pins (TO-3 Modified) specify devices MCR649AP-1(2N2573) thru MCR649AP-7(2N2579).

**MAXIMUM RATINGS** ( $T_J = 125^\circ\text{C}$  unless otherwise noted)

Rating	Symbol	Value	Unit
Peak Reverse Blocking Voltage* 2N2573 2N2574 2N2575 2N2576 2N2577 2N2578 2N2579	$V_{RSM(rep)}$ *	25 50 100 200 300 400 500	Volts
Forward Current RMS (all conduction angles)	$I_T(RMS)$	25	Amp
Circuit Fusing Considerations ( $T_J = -65^\circ$ to $+125^\circ\text{C}$ , $t \leq 8.3$ ms)	$I^2t$	275	$\text{A}^2\text{s}$
Peak Surge Current (One Cycle, 60 Hz, $T_J = -65$ to $+125^\circ\text{C}$ )	$I_{TSM}$	280	Amp
Peak Gate Power - Forward	$P_{GM}$	5.0	Watts
Average Gate Power - Forward	$P_{G(AV)}$	0.5	Watt
Peak Gate Current - Forward	$I_{GM}$	2.0	Amp
Peak Gate Voltage - Forward Reverse	$V_{GFM}$ $V_{GRM}$	10 5.0	Volts
Operating Junction Temperature Range	$T_J$	-65 to +125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-65 to +150	$^\circ\text{C}$



NJ Semi-Conductors reserves the right to change test conditions, parameters limits and package dimensions without notice information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

ELECTRICAL CHARACTERISTICS ( $T_C = 25^\circ\text{C}$  unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Units
Peak Forward Blocking Voltage* ( $T_J = 125^\circ\text{C}$ )	$V_{DRM}^*$	25 50 100 200 300 400 500	—	—	Volts
Peak Forward Blocking Current (Rated $V_{DRM}$ with gate open, $T_J = 125^\circ\text{C}$ )	$I_{DRM}$	—	0.6	5.0	mA
Peak Reverse Blocking Current (Rated $V_{RSM}$ , $T_J = 125^\circ\text{C}$ )	$I_{RRM}$	—	0.6	5.0	mA
Gate Trigger Current (Continuous dc) (Anode Voltage = 7 Vdc, $R_L = 100 \Omega$ )	$I_{GT}$	—	20	40	mA
Gate Trigger Voltage (Continuous dc) (Anode Voltage = 7 Vdc, $R_L = 100 \Omega$ ) ( $V_{DRM} = \text{Rated}$ , $R_L = 100 \Omega$ , $T_J = 125^\circ\text{C}$ )	$V_{GT}$ $V_{GNT}$	— 0.3	1.0 —	3.5 3.5	Volts
Forward On Voltage ( $I_T = 20 \text{ Adc}$ )	$V_T$	—	1.1	1.4	Volts
Holding Current (Anode Voltage = 7 Vdc, Gate Open)	$I_H$	—	20	—	mA
Turn-On Time ( $t_d + t_r$ ) ( $I_{GT} = 50 \text{ mA}$ , $I_T = 10 \text{ A}$ )	$t_{gt}$	—	1.0	—	$\mu\text{s}$
Turn-Off Time ( $I_T = 10 \text{ A}$ , $I_R = 10 \text{ A}$ , $dv/dt = 20 \text{ V}/\mu\text{s}$ , $T_J = 125^\circ\text{C}$ ) ( $V_{DRM} = \text{rated voltage}$ )	$t_q$	—	30	—	$\mu\text{s}$
Forward Voltage Application Rate (Gate Open, $T_J = 125^\circ\text{C}$ )	$dv/dt$	—	30	—	$\text{V}/\mu\text{s}$
Thermal Resistance (Junction to Case)	$\theta_{JC}$	—	1.0	1.5	$^\circ\text{C}/\text{W}$

\* $V_{DRM}$  for all types can be applied on a continuous dc basis without incurring damage.

$V_{DRM}$  ratings apply for zero or negative gate voltage.